

LISTING OF CLAIMS:

1. (Currently amended) A torque transmitting apparatus for transmitting a torque from a driving source to a rotary device, comprising:

a first rotor driven in a rotating direction upon receipt of the torque from said driving source via a member disposed between said first rotor and said driving source, ~~wherein~~wherein:

said first rotor receives a radial load in a radial direction thereof from said member while being driven in the rotating ~~direction~~, and direction;

said first rotor includes an outer annular portion, an inner annular portion and a plurality of projections, each of which~~projections~~;

the inner annular portion is radially and inwardly spaced from the outer annular portion; and

each projection extends radially and inwardly from the outer annular portion to the inner annular portion and axially extends in a direction generally parallel to a rotational axis of said first rotor;

a radial bearing disposed between the first rotor and a support member, wherein said radial bearing supports the first rotor rotatably on said support member against the radial load on said first rotor;

a second rotor connected to a rotating portion of said rotary device and rotating together with said rotating portion, wherein said second rotor includes a plurality of projections, each of which extends in a direction generally parallel to said rotational axis of said first rotor and is placed between two corresponding projections of said plurality of projections of said first rotor; and

a plurality of pairs of torque transmitting members disposed between said first rotor and said second rotor for transmitting the torque in the rotating direction to said second rotor, wherein:

each torque transmitting member is deformable elastically in the rotating direction and is placed between a corresponding one of said plurality of projections of said first rotor and a corresponding one of said plurality of projections of said second rotor;

each torque transmitting member has a non-linear spring characteristic; ~~and~~

each pair of torque transmitting members is arranged such that said torque transmitting members of each pair are arranged, in the rotating direction, on opposite sides, respectively, of a corresponding one of said projections; and

each pair of torque transmitting members is constructed such that said torque transmitting members of said pair are joined together by a connecting member, which is axially positioned between said second rotor and said corresponding one of said projections on one axial side of said corresponding one of said projections.

2. (Currently amended) A torque transmitting apparatus for transmitting a torque from a driving source to a rotary device, comprising:

a first rotor driven in a rotating direction upon receipt of the torque from said driving source via a member disposed between said first rotor and said driving source, ~~wherein~~wherein:

said first rotor receives a radial load in a radial direction thereof from said member while being driven in the rotating ~~direction, and~~direction;

said first rotor includes an outer annular portion, an inner annular portion and a plurality of projections, each of which projections;

said inner annular portion is radially and inwardly spaced from said outer annular portion; and

each projection radially and inwardly extends from said outer annular portion to said inner annular portion, and each projection axially extends in a direction generally parallel to a rotational axis of said first rotor;

a radial bearing disposed between the first rotor and a support member, wherein said radial bearing supports the first rotor rotatably on said support member against the radial load on said first rotor;

a second rotor connected to a rotating portion of said rotary device and rotating together with said rotating portion, wherein said second rotor includes a plurality of projections, each of which extends in a direction generally parallel to said rotational axis of said first rotor and is placed between two corresponding projections of said plurality of projections of said first rotor; and

a plurality of pairs of torque transmitting members disposed between said first rotor and said second rotor for transmitting the torque in the rotating direction to said second rotor, wherein:

each torque transmitting member is deformable elastically in the rotating direction and is placed between a corresponding one of said plurality of projections of said first rotor and a corresponding one of said plurality of projections of said second rotor;

each torque transmitting member is deformed by a flexural deformation when an amount of deformation is less than a predetermined amount, and is deformed by a compressive deformation when the amount of deformation is more than the predetermined amount, whereby an elastic modulus of said torque transmitting member at the amount of deformation over the predetermined amount becomes larger than that at the amount of deformation below the predetermined amount; and

each pair of torque transmitting members is arranged such that said torque transmitting members of said pair are arranged, in the rotating direction, on opposite sides, respectively, of a corresponding one of said plurality of projections; and

each pair of torque transmitting members is constructed such that said torque transmitting members of said pair are joined together by a connecting member, which is axially positioned between said second rotor and said corresponding one of said plurality of projections on one axial side of said corresponding one of said plurality of projections.

3. (Previously presented) A torque transmitting apparatus according to claim 2, wherein said torque transmitting member is made of rubber or elastomer having a hole.

4-27. (Canceled)

28. (Previously presented) A torque transmitting apparatus according to claim 1, wherein said torque transmitting member is made of rubber or elastomer having a hole.

29. (Previously presented) A torque transmitting apparatus according to claim 1, wherein each torque transmitting member is made of rubber or elastomer, and the transmitting member is deformed by flexural deformation in response to torque in the rotating direction that is smaller than a predetermined torque and is deformed by compressive deformation in response to torque in the rotating direction that is larger than the predetermined torque, the deformation amount of the flexural deformation being larger than the deformation amount of the compressive deformation.

30. (Previously presented) A torque transmitting apparatus according to claim 1, wherein each torque transmitting member is made of rubber or elastomer, and the transmitting member has a first portion that is deformed by a flexural deformation in response to torque in the rotating direction that is smaller than a predetermined torque and a second portion that is deformed by compressive deformation in response to torque in the rotating direction that is larger than the predetermined torque, the deformation amount of said first portion being larger than the deformation amount of said second portion.

31. (Previously presented) A torque transmitting apparatus according to claim 1, wherein each torque transmitting member is made of rubber or elastomer, and the transmitting member has a first portion and a second portion, the first portion being deformed in a first amount by flexural deformation in response to torque in the rotating direction, the second portion being deformed in a second amount by compressive deformation in response to torque in the rotating direction, the first amount being increased more than the second amount as the torque in the rotating direction is increased, wherein the first amount is always larger than the second amount.

32. (Previously presented) A torque transmitting apparatus according to claim 1, wherein each torque transmitting member is free from the radial load.

33. (Previously presented) A torque transmitting apparatus according to claim 1, wherein said member disposed between said first rotor and said driving source is a V belt.

34. (Previously presented) A torque transmitting apparatus according to claim 1, wherein said support member is a housing of said rotary device.

35. (Previously presented) A torque transmitting apparatus according to claim 34, wherein said rotary device is a compressor.

36. (Canceled)

37. (Previously presented) A torque transmitting apparatus according to claim 1, wherein each pair of torque transmitting members is constructed such that said torque transmitting members of said pair are tapered in opposite directions, respectively.

38. (Previously presented) A torque transmitting apparatus according to claim 1, wherein:

said second rotor further includes a torque limiter mechanism, which disables transmission of said torque from said first rotor to said rotary device when said torque transmitted from said first rotor to said torque limiter mechanism reaches a predetermined torque; and

said torque limiter mechanism is arranged in such a manner that an axial extent of said torque limiter mechanism is within an axial extent of said first rotor.